

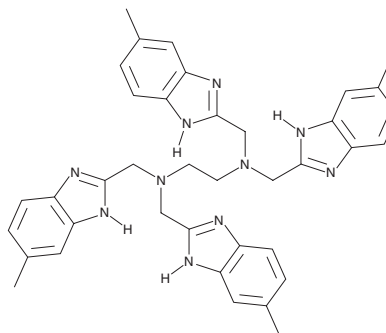
PRODUCT INFORMATION



NSC 348884

Item No. 16716

CAS Registry No.: 81624-55-7
Formal Name: N¹,N¹,N²,N²-tetrakis[(6-methyl-1H-benzimidazol-2-yl)methyl]-1,2-ethanediamine
MF: C₃₈H₄₀N₁₀
FW: 636.8
Purity: ≥98%
UV/Vis.: λ_{max}: 247, 281, 287 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NSC 348884 is supplied as a crystalline solid. A stock solution may be made by dissolving the NSC 348884 in the solvent of choice, which should be purged with an inert gas. NSC 348884 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NSC 348884 in these solvents is approximately 1, 10, and 20 mg/ml, respectively.

NSC 348884 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NSC 348884 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. NSC 348884 has a solubility of approximately 0.25 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nucleophosmin is a nucleolar phosphoprotein involved in cell proliferation, cytoplasmic/nuclear shuttle transportation, nucleic acid binding, ribonucleic cleavage, centrosome duplication, and molecular chaperoning. Its activity is dependent on oligomerization at its N-terminal domain, and it is abundantly expressed in tumor and developing cells where it serves to inhibit both cellular differentiation and apoptosis.¹ NSC 348884 is a small molecule that inhibits the formation of nucleophosmin dimers by disrupting a required binding pocket. It can inhibit cell proliferation and induce apoptosis in various cancer cell lines with IC₅₀ values ranging from 1.4-4 μM.^{1,2}

References

1. Qi, W., Shakalya, K., Stejskal, A., *et al.* NSC348884, a nucleophosmin inhibitor disrupts oligomer formation and induces apoptosis in human cancer cells. *Oncogene* **27(30)**, 4210-4220 (2008).
2. Zhang, J., Zhao, H.L., He, J.f., *et al.* Inhibitory effect of NSC348884, a small molecular inhibitor of nucleophosmin, on the growth of hepatocellular carcinoma cell line hepG2. *Zhongguo Yi Xue Ke Yuan Xue Bao* **34(1)**, 58-61 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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